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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,683	03/21/2005	Ruben Ramos De La Fuente	ARO-00005	8457
67887	7590	11/09/2007	EXAMINER	
PETER J. RASHID			WU, IVES J	
5111 MOUNTAIN ROAD			ART UNIT	
BRIGHTON, MI 48116-9735			PAPER NUMBER	
			1797	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PRASHID@COMCAST.NET

Office Action Summary

Application No.

10/528,683

Applicant(s)

DE LA FUENTE, RUBEN RAMOS

Examiner

Ives Wu

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/21/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13, 18-21, 24 and 28 is/are rejected.
- 7) ☒ Claim(s) 14-17, 22-23, 25-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

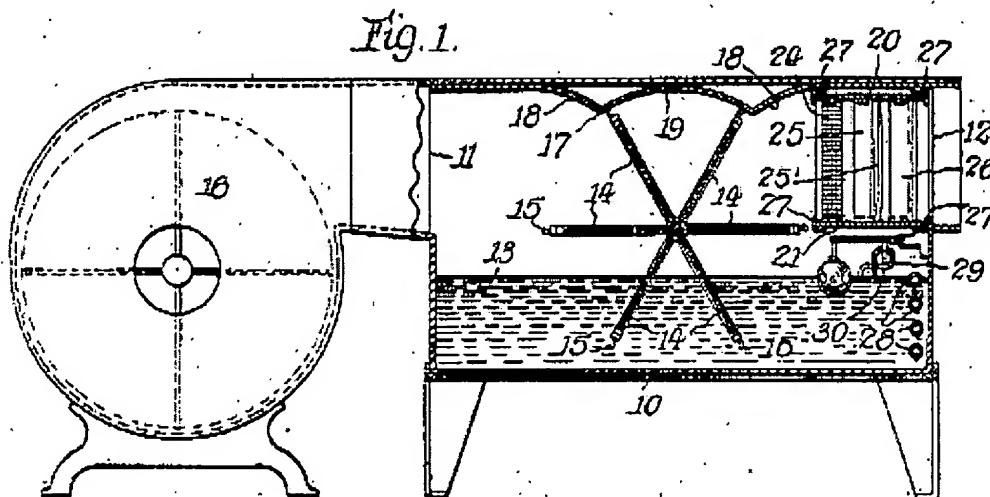
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Ilg (US01846057), evidenced by Schram (US01409593).

As to gas convection means for proving a gaseous stream in a system for mass transfer and elimination of contaminants in **independent claim 13**, Ilg (US01846057) discloses air washer and humidifier (Title). A centrifugal blower 16, the discharge mouth of which registers with the opening 11 of the tank as shown in the Figure 1 below:



As to membrane generation means for generating a membrane cell in **independent claim 13**, ILG (US0184605) discloses the paddles 14 carrying screens (page 1, line 50-51), as the wheel revolves, pick up some of the water. As each blade approaches the vertical position, the water carried by the scoop falls down and is distributed over the screen, thereby increasing the volume of water (page 1, line 56-61), which would form liquid film in the screen by surface tension, therefore, each opening in the screen would read on the membrane cell as claimed.

As to liquid supplying means for providing a liquid to membrane generation means in **independent claim 13**, ILG (US0184605) discloses water as shown in Figure 1 above.

As to ejection means for providing an exit for the gaseous stream in a system in **independent claim 13**, ILG (US0184605) discloses upper half of its end 12 as shown in Figure 1 above.

As to a liquid membrane being generated by membrane cell when membrane cell passing through liquid supplying means in **independent claim 13**, ILG (US0184605) discloses screen in each paddle as shown in Figure 1 above, which would form liquid membrane for openings in the screen inherently as the blade rotates through the water bath.

As to liquid membrane to be collapsed when in contact with the gaseous stream from gas convection means; collapsed liquid membrane removing contaminants from gaseous stream while simultaneously transferring liquid particles to the gaseous stream in **independent claim 13**, ILG (US0184605) discloses as the paddle wheel revolving, so as to compel substantially all of the air delivered by the blower to pass through the screen (page 1, line 74-78), which would collapse the water film formed on the openings of the screen because of the impingement of the air flow and humidify the air. As Evidenced by Schram (US01409593) that water adheres to the screen by capillary attraction the passage way is virtually blocked by a film of water raised by mechanical means, the water being sucked from the screen to form a spray throughout the passage way 11 and 15, the air mingling therewith and the free dirt particles being caught by the spray and deposited in the bath below as shown in Figure 1 (page 2, line 87-95).

As to the liquid comprising water, gaseous stream comprising air in **claim 18**, ILG (US0184605) discloses air washer and humidifier, which reads on the limitations of instant claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 19-20, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over ILG (US01846057).

As to a housing; a fan for forcing a gaseous stream into an interior of housing; a container for containing a liquid in housing; a plurality of membrane cells in a device for mass transfer and elimination of contaminants, wherein a liquid membrane being generated when at least one of plurality of membrane cell passing through the liquid and the collapsed liquid membrane removing contaminants from the gaseous stream while simultaneously transferring liquid molecules to the gaseous stream in **independent claim 19**, the disclosure of ILG is incorporated herein by reference, the most subject matters as currently claimed, have been recited in applicant's claim 1 and in Figure 1 above, and have been discussed therein.

As to a plurality of membrane cells disposed in a cylindrical arrangement and rotatably mounted within housing, ILG (US01846057) **does not teach** the cylindrical arrangement for the membrane cells as claimed. However, changes in shapes renders obvious. *In re Dailey 357 F.2d 669, 149 USPQ 47 (CCPA 1966).*

As to limitation of **claim 20**, the disclosure of ILG is incorporated herein by reference, the most subject matter as currently claimed, has been recited in applicant's claim 18, and has been discussed therein.

As to exterior channels having walls to provide a contact surface for gaseous stream as it exits from the housing in **claim 24**, ILG (US01846057) discloses the eliminator to assist in cleaning the air of particles of dust and dirt which may fail to be washed out by the paddle screens and also to free the air of excess moisture in the form of fine spray, it consist of a rectangular sheet-metal frame comprising top and bottom walls 20 and 21 and end walls 22 as shown in Figure 1 above, which includes the features of instant claim.

As to device comprising a housing, a fan for forcing a gaseous stream into an interior of housing, a container for containing a liquid, a plurality of membrane cells disposed in a cylindrical arrangement and rotatably mounted within housing in a method of eliminating contaminants in **independent claim 28**, the disclosure of ILG is incorporated herein by reference, the most subject as currently claimed, have been recited in applicant's claim 19 and have been discussed therein.

As to step of immersing at least one of plurality of membrane cells in the liquid; step of forming a liquid membrane by at least one of plurality of membrane cells when at least one membrane cell passing through the liquid; step of collapsing the liquid membrane by contacting the liquid membrane with the gaseous stream; step of ejecting the gaseous stream from housing, whereby the collapsed liquid membrane removing contaminants from the gaseous stream while simultaneously transferring liquid molecules to the gaseous stream in **independent claim 28**, the disclosure of ILG is incorporated herein by reference, the most subject as currently claimed, have been recited in applicant's claim 13, Figure 1 above, and have been discussed therein.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over ILG (US01846057) in view of Petz et al(US20050087071A1).

As to aromatizers and disinfectants in **claim 21**, Ilg (US01846057) **does not teach** use of disinfectants and aromatizers as claimed.

However, Petz et al (US20050087071) **teach** the use of aromas or the like ([0010]). To keep the liquid free of germs, applied foils comprising copper-containing material ([0014]).

The advantage of using aromas is to have beneficial effects on user's psyche ([0010]), and the copper materials have proven effective at combating the growth of bacteria in the liquid ([0014]).

Therefore, it would have been obvious at time of the invention to add aromas, copper foils disclosed by Petz et al in the air washer and humidifier of ILG in order to obtain the above-cited advantage.

Allowable Subject Matter

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Claims 14-17, 22-23 and 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ives Wu whose telephone number is 571-272-4245. The examiner can normally be reached on 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Ives Wu

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Date: November 2, 2007

DUANE SMITH
PRIMARY EXAMINER

[Signature]
11-6-07